

**WATER SUPPLY SYSTEM MANAGEMENT PLAN
FOR THE
PASCOAG UTILITY DISTRICT**

**EXECUTIVE SUMMARY
FIVE YEAR UPDATE**

**PREPARED FOR:
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EXECUTIVE SUMMARY

Background

This Water Supply System Management Plan (WSSMP) has been prepared as required under the Rhode Island General Laws 46-15.3, as amended and titled "The Water Supply System Management Planning Act" (Act). The legislative authority to effectuate the goals and policies of this Act has been conferred to the Rhode Island Water Resources Board (RIWRB). To this end, the RIWRB has promulgated the Rules and Procedures for Water Supply System Management Planning, October 1998, as amended to implement the provisions of this Act.

Under this regulation, the Pascoag Utility District (PUD), as a water purveyor supplying over 141 million gallons of water per year, is responsible for the preparation and adoption of a WSSMP. It also requires that this WSSMP be updated periodically, as significant changes warrant, and every five (5) years, or as otherwise stipulated in the Regulations. This document has been updated with this most recent submission to include data through calendar year 2007.

Water Supply System Management Plans are prepared in order to provide the proper framework that will facilitate the effective and efficient conservation, development, utilization and protection of the natural water resources of the State as utilized by the water purveyor. Further, the overall goals incorporate the applicable policies and recommendations of the State Guide Plan Element 721, "Water Supply Policies for Rhode Island." The purpose of this WSSMP is to outline the objectives of the Water Supply System Management Planning process for the PUD water supply and distribution system, and to serve as a guide to employ the proper decision-making processes toward meeting that goal.

This WSSMP contains a detailed description of the water system and includes the policies and procedures related to the general function, operation, and management of the water system. The Emergency Management section relates to the vulnerability assessment of the water system for use in emergency planning. It shall be incumbent upon the PUD to implement the recommendations and procedures outlined in this WSSMP in order to comply with the overall requirements of the Act.

Water System Description

The PUD owns and operates the water supply, transmission, storage and distribution system. The water system is comprised of approximately 15 miles of water transmission and distribution mains, hydrants, meters, a well pump station, two (2) water storage tanks, wholesale interconnection and meter station and appurtenances that serve 1,074 service accounts (e.g. residential, commercial, and governmental) within the District.

The transmission and distribution system as a whole consists of approximately 15 miles of water main, ranging in size from 2 to 14 inches. New and replacement mains consist predominantly of cement-lined ductile iron (DI) pipe. The majority of the transmission and distribution system at present is comprised of cast iron and ductile iron water mains.

The PUD currently obtains water supply from two primary sources. This includes the wholesale purchase of water from neighboring Harrisville Fire District (HFD) and groundwater source production from the recently installed Well Station No. 5. The primary PUD well field was abandoned in the summer of 2001 as a result of MTBE contamination and as a result the wholesale interconnection with HFD was required for primary water supply.

The PUD water system is operated as a single pressure zone. Finished water provided by the HFD is transmitted to the PUD where it is distributed to the Districts service area and the water storage facilities. Well Station No. 5 was activated in January 2008 and is utilized to supplement the supply from HFD. Currently, the PUD obtains approximately 30 percent of the total system demand from this new groundwater supply.

The water supply and distribution system is 100% metered. There is a master meter located at the Harrisville/Pascoag interconnection located on Main Street and a master meter at the new well station. Every service connection within the water distribution system is metered at the point of sale, thus providing 100% distribution metering.

Recent System Improvements

The PUD maintains an ongoing, aggressive Capital Improvements Program (CIP) in order to provide its customers with a safe and reliable supply of potable water. There have been several significant improvements to the water distribution system. The following list identifies the major system improvements that have taken place in recent years.

- Study by HydroSource Associates to explore additional groundwater supply sources within the PUD. This resulted in the development of Well Station No. 5 which can produce up to 150 gpm but is currently limited by RIDEM Wetlands Permit restrictions to 75 gpm.
- Upgrade of chlorination system at the wholesale interconnection.
- Meter replacement on as needed basis.
- Hydrant, valve and service line replacement on as needed basis.
- System-wide control upgrades.

Policy and Procedure

The PUD continues to focus its efforts on supplying safe and reliable drinking water to its customers, as seen through the accomplishments of the Clean Water Infrastructure Replacement Plan. The PUD shall continue to address any and all water system deficiencies by way of this vehicle.

The PUD is equally concerned with water conservation. The PUD is focusing on maintaining its rate of non-account water below the State goal of 15 percent (established in State Guide Plan Element 721). Through implementation of an increasing block rate-billing schedule that replaced a decreasing block rate structure, enactment of outdoor water use restrictions, and public education initiatives, the PUD continues to demonstrate a strong commitment to water conservation.

The population of Burrillville has decreased moderately over the past decade. During this same span, the corresponding Average Day Demand (ADD) has decreased. The 2007 ADD is 310,000 gallons per day (gpd) with a Maximum Day Demand (MDD) of 460,000 gpd.

Presently, the District relies upon the wholesale purchase of water from HFD as the primary supply. This is supplemented with supply from the recently (January 2008) Well Station No. 5 which supplies upwards of 30 percent of the District average daily demand. Anticipated future water demands for the 5- and 20-year planning periods have been estimated as follows:

	5 Year	20 Year
Average Day Demand	313,000 mgd	319,000 mgd
Maximum Day Demand	463,000 mgd	472,000 mgd

These projections are based on population projections made by the United States Census Bureau. These estimates do not however, account for significant water savings potentially realized through implementation of demand management strategies.

The Emergency Management section of the Plan establishes the responsibilities and authority within the PUD for responding to most probable emergencies and outlines specific tasks for carrying out functional and constructive solutions based on a review of the potential emergencies and risks. The procedures outlined are consistent with the goals of the State Emergency Water Supply System Management Plan. It is also intended that this document provide guidance to ensure that the primary aspects of recovery from an emergency are addressed in an organized manner to aid in an efficient response and in maintaining drinking water quality and quantity.